Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (previously presented): A water heating system comprising:

a water storage vessel;

a water circuit circulating water from at least one inlet in fluid communication with said storage vessel to at least one outlet in fluid communication with said storage vessel;

a first heat exchanger and a second heat exchanger operably disposed in said water circuit, said first heat exchanger and said second heat exchanger arranged in parallel;

a vapor compression system defining a refrigerant circuit for circulating a refrigerant, said vapor compression system including a first compressor mechanism and a second compressor mechanism, said first compressor mechanism compressing a refrigerant from a suction pressure to an intermediate pressure, said second compressor mechanism compressing the refrigerant from the intermediate pressure to a discharge pressure;

said first heat exchanger being operably disposed in said refrigerant circuit between said first and second compressor mechanisms wherein intermediate pressure refrigerant heats water in said water circuit;

an expansion device operably disposed in said refrigerant circuit, reducing the pressure of said refrigerant;

an evaporator operably disposed in said refrigerant circuit between said expansion device and said first compressor mechanism; and wherein

said second heat exchanger is operably disposed in said refrigerant circuit between said second compressor mechanism and said expansion device wherein discharge pressure refrigerant heats water in said fluid circuit.

2. (previously presented): The water heating system of claim 1 wherein said vapor compression system further comprises a refrigerant heat exchanger transferring thermal energy between refrigerant at first and second locations, said first location disposed between said second

heat exchanger and said expansion device, said second location disposed between said evaporator and said first compression mechanism.

3. (previously presented): The water heating system of claim 1 wherein said second heat exchanger includes a primary heat exchanger and a secondary heat exchanger.

4. (original): The water heating system of claim 3 wherein said primary and secondary heat exchangers are disposed in series in said refrigerant circuit.

5. (original): The water heating system of claim 1 wherein said refrigerant comprises carbon dioxide and said second compressor mechanism compresses said refrigerant to a supercritical discharge pressure.

6. (original): The water heating system of claim 1 further comprising at least one pressure relief valve operably disposed in said refrigerant circuit between said second compressor mechanism and said expansion device.

7. (previously presented): The water heating system of claim 1 wherein said water storage vessel, said first heat exchanger and said second heat exchanger are disposed in a building interior and wherein said first and second compressor mechanisms and said evaporator are disposed in an exterior location.

8. (previously presented): The water heating system of claim 1 further comprising a pump positioned in said water circuit, said pump circulating water through said water circuit.

9. (previously presented): A method of heating water, said method comprising the steps of:

providing a water circuit including a water storage vessel, and first and second heat exchangers arranged in parallel within the water circuit;

providing a first compressor mechanism and a second compressor mechanism;

compressing a refrigerant comprising carbon dioxide from a suction pressure to an intermediate pressure in said first compressor mechanism;

compressing the refrigerant from the intermediate pressure to a supercritical discharge pressure in said second compressor mechanism;

circulating water through the first heat exchanger, heating the water with the intermediate pressure refrigerant in said first heat exchanger, and communicating the water heated in said first heat exchanger to said storage vessel; and

circulating water through the second heat exchanger, heating the water with the supercritical pressure refrigerant in said second heat exchanger, and communicating the water heated in said second heat exchanger to said storage vessel.

10. (original): The method of claim 9 further comprising:

reducing the pressure of the refrigerant in an expansion device after cooling the refrigerant in the second heat exchanger;

heating the refrigerant in an evaporator after reducing the pressure of the refrigerant in the expansion device; and

communicating the refrigerant to said first compressor mechanism after heating the refrigerant in said evaporator.

11. (previously presented): The method of claim 10 further comprising the step of exchanging thermal energy in a refrigerant heat exchanger having a first refrigerant passageway operably disposed between said second heat exchanger and said expansion device and a second refrigerant passageway operably disposed between said evaporator and said first compression mechanism.

12. (previously presented): A method of heating water, comprising the steps of:

providing a water circuit including a water storage vessel, and first and second heat exchangers arranged in parallel within the water circuit;

providing a first compressor mechanism and a second compressor mechanism;

compressing a refrigerant from a suction pressure to an intermediate pressure in said first compressor mechanism;

compressing the refrigerant from the intermediate pressure to a discharge pressure in said second compressor mechanism;

circulating water through the first heat exchanger, heating the water with the intermediate pressure refrigerant in the first heat exchanger, and communicating the water heated in the first heat exchanger to the storage vessel; and

circulating water through the second heat exchanger, heating the water with the discharge pressure refrigerant in the second heat exchanger, and communicating the water heated in the second heat exchanger to the storage vessel.